# Appendix C

Statement of Work

# STATEMENT OF WORK FOR THE REMEDIAL ACTION AT THE HAMILTON SUNDSTRAND PROPERTY PORTION OF SOURCE AREA 9/10 OF THE SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE ROCKFORD, ILLINOIS – WINNEBAGO COUNTY

## I. PURPOSE AND BACKGROUND

### A. Purpose

The purposes of this Statement of Work (SOW) are to set forth requirements for implementation of the Remedial Action (RA) at or within the Hamilton Sundstrand (Hamilton Sundstrand or Settling Defendant) Property portion of Source Area 9/10 (Site) in accordance with the Final 100% Remedial Design ( RD) plan package developed by Hamilton Sundstrand and its consultants and approved by the United States Environmental Protection Agency (U.S. EPA) on April 26, 2007, provide additional specificity with respect to the remedy selection in the Record of Decision (ROD) and to implement the remedy as described in this SOW, the Performance Standards as set forth in the ROD and as further described in this SOW. Remedial Design work performed by Hamilton Sundstrand was in fulfillment of the terms of an Administrative Order on Consent signed by Hamilton Sundstrand and U.S. EPA on January 13, 2003. This RD was developed to implement requirements as selected in the ROD for Operable Unit #3 (OU3), Source Area 9/10, of the Southeast Rockford Groundwater Contamination Superfund Site (SERGWCSS), which was signed by the Director of the Illinois Environmental Protection Agency (Illinois EPA) on May 8, 2002. U.S. EPA concurred with the ROD on June 11, 2002. When implementing the RA at the Hamilton Sundstrand Property at the Site, Hamilton Sundstrand shall follow the requirements of the Consent Decree entered into by the United States, the State of Illinois and Hamilton Sundstrand (collectively, the Parties), the ROD, this SOW, the approved 100% RD package, the approved RA Work Plan, and U.S. EPA Superfund Remedial Action Guidance and any additional guidance provided by U.S. EPA and Illinois EPA, in submitting deliverables at the Hamilton Sundstrand Property at the Site.

Operable Unit #3, discussed in the June 2002 ROD, concerns source control activity to be conducted at the four leading source areas at the SERGWCSS which pose either direct contact problems or may serve as significant remaining sources of continuing groundwater contamination at the SERGWCSS. Illinois EPA has the technical lead via a cooperative agreement with U.S. EPA for RD and RA work at all four Source Areas (4, 7, 9/10 and 11) within the SERGWCSS. The Site includes an active industrial facility with operating entities, including but not limited to those owned and operated by Settling Defendant, Hamilton Sundstrand. Industrial activity has been conducted at the Site since at least the 1920s. The U.S. EPA and the State have not entered into a consent decree or administrative order on consent with any other potentially responsible parties at the Site. Prior investigation reports indicate releases of hazardous substances, including but not limited to such volatile organic compounds (VOCs) as tetrachloroethene (PCE), 1,1,1-trichloroethane (TCA), and toluene, associated with former

outdoor drum storage areas and/or underground tank storage locations. Following the OU3 ROD issuance, on June 11, 2002, U.S. EPA sent a combination general notice letter/special notice letter to Hamilton Sundstrand. On January 13, 2003, the Region 5 Superfund Division Director issued an Administrative Order on Consent (AOC) signed by Hamilton Sundstrand. The AOC required Hamilton Sundstrand to perform a RD at the Site to attain ROD objectives, reimburse U.S. EPA for past costs attributable to the Site, and pay U.S. EPA oversight costs related to the Site. Hamilton Sundstrand has fully satisfied its obligations under such AOC. Based upon the completed 100% RD, the technology and extent of RA described in the ROD includes, but is not limited to, soil vapor extraction (SVE), enhanced air sparging in the shallow groundwater regime, and creation of a groundwater management zone (GMZ) within the Hamilton Sundstrand Property at the Site.

### B. Background

This Background Section provides a general description of the RA to be performed at the Hamilton Sundstrand Property portion of the Site. The SERGWCSS is located in Rockford, Winnebago County, Illinois and consists of an approximately 7.5 square mile area. The Site is located within the SERGWCSS in an area bounded by Eleventh Street on the east, Twenty-Third Avenue on the north, Harrison Avenue on the south, and Sixth Street on the west. Further details on the SERGWCSS's history may be found in the SERGWCSS RODs for other Operable Units as well as the Administrative Record file. Additional information concerning the scope of contamination and remedy development may be found for all SERGWCSS Operable Units in the ROD Database maintained by U.S. EPA. The following web site address will take the user directly to the text of the OU3, June 11, 2002 ROD, which is also attached as Appendix A to the Consent Decree:

http://www.epa.gov/superfund/sites/rods/fulltext/r0502077.pdf

The Site, described at pp. 27-32 of the ROD (pages 26-31 of the pdf. in the above link), has a long history of industrial activity extending back to approximately 1926. At that time, the Rockford Milling Machine and Rockford Tool Companies merged to become the Sundstrand Machine Tool Company which is located at the northwest corner of Eleventh Street and Harrison Avenue in Rockford, Illinois, in the Site. A number of other industrial entities, not parties to the Consent Decree, have also conducted operations at the Site.

The SERGWCSS was proposed for addition to the National Priorities List (NPL), 40 CFR Part 300, Appendix B, in June 1988, and was listed on March 31, 1989, 54 Fed. Reg. 13296.

The properties to the immediate north of the Site, across Twenty-Third Avenue, are zoned residential. The properties south of the Site, across Harrison Avenue, are zoned for both commercial and residential purposes. The Site is zoned as light industrial. Future use plans by the City of Rockford, Illinois appear to follow the same zoning patterns as noted above. The City

of Rockford, Illinois, and Winnebago County draw 100% of their water supply from groundwater through private, industrial and municipal supply wells.

The Hamilton Sundstrand Property manufactures extremely high tolerance aerospace/aeronautical parts and its sizeable manufacturing processes have so far precluded a more complete assessment of contaminant sources, including Solid Waste Management Units (SWMUs) and areas of concern, within the building footprint. Demolition of portions of one of the Hamilton Sundstrand Property buildings is planned to occur in 2008, and access may become available to address closure of certain RCRA units and areas of concern and the leaking underground storage tanks (LUST Incident area) discovered in 2000. Other areas of the Hamilton Sundstrand Property may remain operating and/or inaccessible until later dates. Hamilton Sundstrand shall use the RA process to provide the framework for the inspection and investigation of the LUST Incident area and other areas of concern, identified under Section II.I. of this SOW, as they cease operations and become accessible.

In 2000, Hamilton Sundstrand discovered six Underground Storage Tanks (UST)s during construction activities for equipment placement. These tanks contained solvents, water soluable oil, waste oil, and used solvent. Releases occurred from these USTs and the Illinois Emergency Management Agency (IEMA) was notified. LUST incident #20001409, associated with releases from four of the USTs containing solvent (2 USTs), water soluble oil (1 UST), and waste oil (1 UST), was assigned to the event. As part of the RA process, Hamilton Sundstrand shall assess this LUST Incident area and other SWMUs and areas of concern as they become accessible and Hamilton Sundstrand shall propose remediation activities to U.S. EPA and Illinois EPA in accordance with this SOW.

1. Remediation of Contaminants at the Site

The active remedial technologies selected for the Site in the OU3 June 2002 ROD consist of SVE with activated carbon treatment for contaminated soils above the groundwater table, and enhanced air sparging wells to be installed extending below the groundwater table within the footprint of the GMZ established within the Site. Information on which the design was based may be found in the October 1, 2004 Source Area 9/10 "Pilot Test Summary Report" prepared as a part of the U.S. EPA-approved RD and attached to the 100% RD that is Appendix B to the Consent Decree. The Pilot Test Summary Report details the results of the pilot test performed as part of the RD.

For illustrative purposes only, and not by way of limitation, some of the main investigation and predesign findings related to the Hamilton Sundstrand Property portion of the Site are given below. Also provided is information as to why the "Outside Storage Area " (OSA) and "Loading Dock Area" portions of the Hamilton Sundstrand Property have somewhat different contaminant and/or depth characteristics that justify contaminated soil management which varies from the rest of the Site, but which, if done properly, would aid and simplify overall remedy execution.

2. Western South Alley Treatment Area

The area along the western portion of the South Alley, a narrow lane running parallel to the Hamilton Sundstrand Plant #1 south wall, in which the main portion of air sparge and soil vapor extraction equipment shall be located, is approximately 450 feet long by 30 feet wide.

3. Pilot Test and Air Sparge System

In employing air sparging as a remedial technology for VOCs, air shall be injected below the groundwater table and soil interface. This aids in removing VOCs by transforming them from a dissolved phase in groundwater into a vapor phase which can be further withdrawn when coupled with a SVE system.

During the pilot test, air was injected at a depth of 8-10 feet below the groundwater table, at an injection rate varying from 44-48 cubic feet/minute. As noted in the Pilot Test Summary Report detailing such work, the pilot test results were considered very positive, and indicated that air sparging and SVE are viable technologies for the RA for Source Area 9/10.

4. Soil Vapor Extraction

The soil vapor extraction system shall be operated to capture VOCs in the vapor phase which have been volatilized by air sparging activities. Soil vapor extraction system components had their sizing and other specifications calculated in significant part from the pilot test and are described in the Pilot Test Summary Report.

5. Outside Storage Area

According to previous investigations, the OSA associated with the former Hamilton Sundstrand Plant #2 (now inoperative) was located at the southwest corner of the Hamilton Sundstrand parking lot (Ninth Street and Twenty-Third Avenue in Source Area 9/10). Between 1962 and 1985, various 55-gallon drums of VOC-bearing materials including PCE, TCA, toluene, acetone, and methylene chloride were stored in this area. There were also elevated levels of lead, cadmium and mercury identified in shallow soil.

Due to the relatively shallow depth of soil contaminants in the OSA, compared to the rest of Source Area 9/10, contaminated soil excavation and removal within the OSA, shall be performed as part of the RA, pending U.S. EPA's issuance of an Explanation of Significant Differences (ESD). The removal of impacted soil to a minimum target depth of four feet within the OSA shall be conducted. This should result in contaminant mass removal by excavation and off-site disposal of source material. Alternatively, depending on the results obtained after excavation is completed, SVE and/or enhanced air sparging may be required. Additionally, pilot work to aid

and enhance the remedial action to degrade source material shall be conducted in the vicinity of the OSA as discussed in Section II.E. below.

6. Loading Dock Area

Between approximately 1962 and 1987, Hamilton Sundstrand maintained at least 14 underground storage tanks (USTs) at its Hamilton Sundstrand Plant #1 dock area within the Hamilton Sundstrand Property. The USTs were constructed of steel and were used for containing solvents, including PCE, TCA, and cleaning solvents. Sizing of the treatment area was based on the array of monitoring wells installed which revealed significant levels of VOCs. A limited area with elevated PCE concentrations was identified in the shallow soils in the loading dock area. Excavation of the shallow impacted soil shall be guided by soil sampling and analysis. The source material removed shall be disposed off-site. The excavation of source material at the loading dock area shall be contingent upon U.S. EPA's issuance of an ESD.

### C. General Provisions Related to the Work

For the duration of the Consent Decree, U.S. EPA and Illinois EPA will attempt to coordinate their programs and efforts, such as those governing CERCLA, USTs and RCRA, in order to avoid undue interference with key remedial components, and attempt to avoid requiring Hamilton Sundstrand to be subject to duplicative efforts or programmatic review.

Any delays related to or arising from the issuance of an ESD for the OSA soil excavation and removal, or from the issuance of any other ESD or Nonsignificant or Minor Change to the ROD required or desirable to achieve the Performance Standards or implement any other Work agreed to between the Parties shall not be attributed to, or for purposes of the Consent Decree and this SOW counted toward, Hamilton Sundstrand' compliance time.

## II. DESCRIPTION OF THE REMEDIAL ACTION / PERFORMANCE STANDARDS

Hamilton Sundstrand shall implement the RA to meet the Performance Standards and specifications set forth in the ROD, Consent Decree, and this SOW. The Performance Standards shall include cleanup standards, standards of control, quality criteria and other substantive requirements, criteria or limitations, including all Applicable or Relevant and Appropriate Requirements (ARARs), required to satisfy the ROD, this SOW, the Consent Decree, and consistency with 35 IAC Part 620 for the establishment of a GMZ. In order to satisfy the Performance Standards, Hamilton Sundstrand shall implement the following components of the RA at the Hamilton Sundstrand Property within the Site:

A. Necessary Institutional Controls (ICs)

Within 10 days after U.S. EPA approval of the IC Notice, Settling Defendant shall execute and

record with the Winnebago County Recorder of Deeds the Notice in Appendix E of the Consent Decree. The Notice shall inform the public that the Hamilton Sundstrand Property within Source Area 9/10 is part of an NPL Site that contains source contamination and contaminated groundwater, and that U.S. EPA selected a remedy for the NPL Site on June 11, 2002, and that Settling Defendant has entered into a Consent Decree requiring implementation of the RA as well as certain land and groundwater restrictions to maintain the integrity and protectiveness of the remedy. Thereafter, Settling Defendant shall implement the ICs defined in the U.S. EPA-approved 100% RD, Institutional Control Implementation and Assurance Plan, and/or Operation and Maintenance (O & M) Work Plan as required by the ROD, Consent Decree, and this SOW.

For the OSA cap (and for the loading dock area cap, if necessary) to be fully effective, appropriate ICs shall also apply. ICs are those non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land or resource use. Although it is U.S. EPA's expectation that treatment or engineering controls shall be the primary mechanism in dealing with most of the threat posed by release of hazardous substances at a given site, ICs can play an important role in the function of a given remedy. Further IC guidance can be found at the following U.S. EPA web site:

http://www.epa.gov/superfund/action/ic/guide/index.htm

Hamilton Sundstrand may propose, subject to U.S. EPA approval, to implement and coordinate the placement of other ICs associated with the Work within the Hamilton Sundstrand Property.

With specific regard to a cap, cap effectiveness would be defeated if excavation through or into the cap occurred before remedial objectives are accomplished. This could occur, for example, by utility line extension. Hence, in providing work plan approval (separate document) for the actions contemplated in a potential ESD, U.S. EPA will require that Hamilton Sundstrand shall post adequate notice and seek necessary activity restrictions on site property deeds so as to ensure any cap is given appropriate IC protection.

B. Site Security Measures

Settling Defendant shall install and maintain security measures including establishment of Site Security and Work Zones within the Hamilton Sundstrand Property during implementation of the RA as required by the U.S. EPA-approved 100% RD, Health and Safety Plan, and/or O & M Work Plan as required by the ROD, Consent Decree and this SOW. The Security Measures shall include temporary fencing to create exclusion and decontamination zones around the OSA and the loading dock area, as well as road closures, as necessary, during excavation activities. Warning signs shall be posted advising that the area is hazardous due to chemicals in the soils and groundwater which pose a risk to public health through direct contact with soils and groundwater.

Temporary fencing shall be constructed and used to create exclusion and decontamination zones around the OSA and loading dock to block access by Hamilton Sundstrand personnel and others. Permission to close the sidewalk and perhaps a portion of a drive lane on Ninth Street adjacent to the OSA shall be sought by Hamilton Sundstrand from the City of Rockford. If roadway closure is granted by the City of Rockford, a larger exclusion area shall be created using the aforementioned fencing and appropriate lane closure signage (based on current Illinois Department of Transportation standards). A site layout identifying the approximate exclusion, decontamination, and support work zones shall be provided in the OSA remediation plan. The proximity of the excavation to structures and utilities shall require that special care be taken to avoid damaging or compromising the integrity of the adjacent infrastructure. In some areas, excavation walls may require shoring, benching or sloping as determined by the U.S. EPA and/or Illinois EPA Remedial Project Manager (RPM).

C. Jet Propellant 4 (JP-4) Recovery Wells

In order to reduce interference in the operation of air sparging wells, soil vapor extraction wells, and their emission control systems, Settling Defendant shall operate and maintain a system of three Jet Propellant (JP-4) Recovery Wells. These wells shall be used to collect free product JP-4 which has moved beyond the confines of its storage vessel, and has been released into the Site. Settling Defendant shall submit quarterly progress reports to U.S. EPA and Illinois EPA concerning JP-4 recovery efforts as appropriate as part of the required quarterly reporting requirements for other activities (unless the Parties agree to an alternative schedule). Settling Defendant shall operate these wells until it can be demonstrated to U.S. EPA's and Illinois EPA's satisfaction that the remaining JP-4 would not interfere with such remediation systems or any free product JP-4 has been removed to the maximum extent practicable.

D. Description of Active Remediation Components and Performance Standards

1. 15 Enhanced Air Sparge and 6 Soil Vapor Extraction Wells and Granular Activated Carbon (GAC) Treatment Systems and Alternative Measures

Settling Defendant shall install, operate, and maintain a combined air sparging, soil vapor extraction and GAC treatment system as necessary (the System) for remediation of contaminated soils and leachate in accordance with the ROD, consisting of 15 air sparge wells, 6 soil vapor extraction wells and a GAC treatment system as necessary. The Settling Defendant shall operate the System or such elements of the System as necessary to meet the Performance Standards as described below.

The RA work described in the RD envisions that 15 enhanced air sparging wells shall be installed, in three banks of five wells. Initially, as operations begin after installation, each grouping shall operate

for approximately four hours at a time. Timing relays and solenoid valves shall be installed to aid in operation of this "pulsed" technique. Operating experience and subsequent approval by U.S. EPA shall be the basis for any needed adjustment of the four-hour active operations period.

Air to be injected in the air sparging wells shall be supplied by a compressor, the specifications of which appear in the RD design package. Depth to groundwater at this portion of the Site is approximately 33 feet, and a treatment zone interval of 17 feet is projected in the 100% RD. Settling Defendant shall install these wells consistent with the Final 100% Remedial Design, and Remedial Action Work Plan.

Remedial Action shall include the installation of six SVE wells, operating in three banks of two wells each. These SVE wells shall be installed in close proximity to the air sparge injection points. The SVE well banks shall be operated sequentially in concert with the air sparge banks, and shall also be under control of timing relay and solenoid air valves. As with the air sparge injection wells, operation of the SVE wells shall be "pulsed" for an initial period of four hours. Adjustment to this period of operation may be made based on operating experience and approval by U.S. EPA. System operation is likely to result in occasional entrapment of water vapor. Installation shall also include an air/water separator to manage any such accumulation.

VOC contaminants withdrawn from the aquifer and soils via the air sparge and SVE well systems employment shall meet customary air permit limits. Any exceedances shall be captured through installation of two GAC units, if necessary. After the initial system start-up and use of GAC for air treatment, system monitoring for capture of VOC contaminants shall provide the basis for a U.S. EPA determination of the effectiveness of the VOC capture by the individual GAC units and the necessity for and duration of continued operation of the GAC units.

"Alternative Measures" may be proposed by Hamilton Sundstrand:

- to supplement and/or be undertaken in lieu of the active remedial measures in a source area described above,
- to implement additional corrective action, or,
- to address additional contamination identified at the Hamilton Sundstrand Property (e.g., as described in Section II.I. of this SOW) in a source area as described more specifically below.

Any proposed Alternative Measure shall be implemented only as approved by the U.S. EPA after an opportunity for review and comment by Illinois EPA, through an ESD or a Nonsignificant or Minor Change to the ROD (i.e., not constituting a fundamental change to the ROD or the selected remedy) (USEPA document 540-R-98-031, July 1999) or by less formal approval, as appropriate, to achieve the Performance Standards at such source area. Alternative Measures may include, by way of example but not of limitation, implementing or varying the pulsing of a remediation system, utilizing chemical and/or biological enhancements, utilizing nitrogen and/or other reducing agents, performing electrical resistive heating, implementing one or more ICs, and/or installing/maintaining

one or more engineered controls.

2. Implementation of Remedial Action and Attainment of Performance Standards

The Performance Standards for each source area at the Hamilton Sundstrand Property shall be met by achieving numeric criteria described at pp. 48-50 and set forth in Table 5 (p.32) in the ROD (the Performance Standards), or, as applicable, as described below in this Section II.D.2.

In order to facilitate implementation of Remedial Action, the use of Alternative Measures and the attainment of Performance Standards, a "Remedial Action Process Flow Diagram" (RAPFD) has been developed and approved by U.S. EPA and Illinois EPA for use at the Hamilton Sundstrand Property. The approved RAPFD shall be included in the RA Work Plan to be submitted in accordance with Section V. of this SOW.

The approved RAPFD describes the process for the continued operation of the System until Hamilton Sundstrand either proposes, based on "objective analysis" (the phrase "objective analysis" as used in this SOW shall include sampling data, and discount any background groundwater conditions which may be under, in or reasonably predicted to enter under the Hamilton Sundstrand Property, and may include but not be limited to modeling, and/or a risk assessment for analysis of groundwater impacts) that ACLs will be met at the GMZ boundary subject to the approval of U.S. EPA after an opportunity for review and comment by Illinois EPA; or, makes a technical impracticability demonstration, and said demonstration is accepted by U.S. EPA after an opportunity for review and comment by Illinois EPA. Below is a narrative of the anticipated steps required in this approved RAPFD process:

If, after implementation of the Remedial Action, Hamilton Sundstrand achieves consistent and repeated asymptotic sampling results (e.g., soil vapor results from the AS/SVE System; contaminant removal and/or degradation rates achieved from an approved Alternative Measure) while active remediation (e.g., in the case of SVE/AS operating systems at various pulse rates) at the source area is ongoing, then Hamilton Sundstrand may perform an objective analysis.

- If the objective analysis indicates concentrations in soil (or leachate) will be at or below Alternate Cleanup Levels (ACLs) at the GMZ boundary, then Hamilton Sundstrand may submit a Shutdown/Monitoring Workplan (Workplan) for the source area(s). This Workplan may include a proposal for limited field investigations/data collection and an evaluation of existing groundwater, soil, and soil vapor extraction data. If this evaluation and subsequent monitoring confirms that criteria will be met (e.g., ACLs at Hamilton Sundstrand boundary), then Hamilton Sundstrand may petition U.S. EPA after an opportunity for review and comment by Illinois EPA to shut down appropriate system(s).

    - If this evaluation and subsequent monitoring confirms that criteria will not be met (e.g., exceedances of ACL at Hamilton Sundstrand boundary) then the remedial

action shall continue and be re-evaluated through the RAFPD process.

- If this evaluation and subsequent monitoring confirms that criteria will be met (e.g., ACLs met at Hamilton Sundstrand boundary), then Hamilton Sundstrand may petition to shut down appropriate system(s). Limited monitoring may continue for a specified period as approved by U.S. EPA after an opportunity for review and comment by Illinois EPA.

- If the objective analysis indicates concentrations in soil (or leachate) will not be at or below the ACLs at the GMZ boundary, then Hamilton Sundstrand shall evaluate and propose Alternative Measure(s). If implemented, the sampling results of the Alternative Measures shall continue to be evaluated under an objective analysis process described above and in the approved RAPFD process to be included in the RAWP.

If, after implementation of the Remedial Action, Hamilton Sundstrand does not achieve repeated and consistent asymptotic sampling results, and an objective analysis of sampling data shows:

- no adverse impact to groundwater and subsequent investigation/monitoring confirms that concentrations in soil or leachate will be at or below the ACL at the GMZ boundary, then Hamilton Sundstrand may petition U.S. EPA after an opportunity for review and comment by Illinois EPA to shut down appropriate system(s).

- an adverse impact to groundwater, then Hamilton Sundstrand shall evaluate and propose Alternative Measure(s). The sampling results from implementation of the Alternative Measure(s) shall be re-evaluated under an objective analysis process described above and in the approved RAPFD process to be included in the RAWP.

If new facts come to light before or after implementation of the remedial action, confirming an inability to treat leachate, the presence of nonaqueous phase liquids, or leachate at depths unlikely to be captured by the System, that would prevent the attainment of Performance Standards, then the Settling Defendant shall either implement the contingent remedy provisions of the ROD or recommend and perform an appropriate alternative remedy or Alternative Measure approved by U.S. EPA after an opportunity for review and comment by Illinois EPA.

In order to meet the Performance Standards at the Property boundary as described above, Hamilton Sundstrand may petition U.S. EPA to approve the conclusion of active remediation for a source area, and U.S. EPA with the opportunity for review and comment by Illinois EPA will consider such petition provided it is supported by an objective analysis.

In the event a petition is approved by U.S. EPA after an opportunity for review and comment by Illinois EPA, for the conclusion of active remediation at a source area(s) as described above, and notwithstanding the exceedance of any Performance Standard within the boundaries of the

Hamilton Sundstrand Property, then the active remediation efforts within the source area may be discontinued. While active remediation efforts within a source area may be discontinued to the extent approved by U.S. EPA after opportunity for review and comment by Illinois EPA, the continued operation of certain other remediation or control efforts elsewhere within the Hamilton Sundstrand Property may be required by such agencies and/or considered appropriate and desirable by Hamilton Sundstrand. In addition, notwithstanding the conclusion of active remediation measures, ongoing groundwater monitoring shall continue as determined by U.S. EPA after an opportunity for review and comment by Illinois EPA.

If U.S. EPA, after opportunity for review and comment by Illinois EPA, denies a petition of Hamilton Sundstrand to approve the conclusion of active remediation for a source area, Hamilton Sundstrand may seek dispute resolution through the Consent Decree. Hamilton Sundstrand shall continue to operate the relevant remediation equipment and/or approved Alternative Measure until the Performance Standards are met or formal Dispute Resolution has resulted in relevant decisions.

E. Sampling and Disposal of OSA Contaminated Soil and Cap Installation

As described in the 100% RD, after performing necessary excavation and removal, Hamilton Sundstrand shall backfill the OSA with clean soil, and limit future water infiltration into this zone by construction of a cap over the OSA. Cap materials and construction design shall be either clay or asphalt and subject to approval by U.S. EPA.

Hamilton Sundstrand shall implement excavation work in accordance with location and depth of contamination found. The actual depth(s) and lateral extent(s) of soil to be removed in each sub area shall take into account health and safety considerations and preservation of the structural integrity of existing infrastructure including buildings, railroad tracks and fixtures and utilities on and adjacent to the OSA and as other potential areas may be available for excavation.

Hamilton Sundstrand shall complete the excavation work using a track backhoe excavator, or equivalent. The concrete pad shall be scored with a concrete saw and broken into manageable pieces using a backhoe as part of excavation activities. The concrete and impacted gravel shall be disposed of along with the waste material. The excavated soil shall be loaded into lined container boxes with tarps or loaded directly into trucks with lined boxes. The trucks for transport shall remain outside of the OSA. The material shall be transported by truck to the designated U.S. EPA-approved facility.

Hamilton Sundstrand shall perform all excavations in accordance with the rules, regulations, requirements, and guidelines set forth in 29 CFR Sections 1926.650, .651, and .652, the Occupational Safety and Health Administration's Standard on Excavations. Hamilton Sundstrand shall employ a qualified person to inspect all excavations to ensure that side walls are stable and do not pose a threat to personnel, equipment, or surrounding infrastructure.

Upon completion of excavation activities in a specific area, Hamilton Sundstrand shall collect base and wall samples, as required by the RAWP. The soil samples shall be obtained using the backhoe bucket or other sample collection device, as appropriate. Personnel shall not enter the excavation for sampling activities at any location greater than four feet deep. Samples shall be collected halfway up the sidewall whether vertical or sloped. Base and wall samples shall be collected at approximately 20 foot intervals. At a minimum, three samples from each wall shall be collected for a total of 12 wall samples around the perimeter of the OSA. Base samples shall also be collected on approximately 20 foot centers.

The timing and manner of backfill placement shall be dictated by the actual site and soil conditions. If existing infrastructure or utilities are considered vulnerable, backfill placement shall be completed immediately following the excavation and sampling activities. The excavation shall be backfilled with clean fill material from a documented source. At a minimum, the top three feet of fill shall be a clay matrix soil.

As discussed in Section I.B.5, of this SOW, Hamilton Sundstrand shall conduct pilot work to aid and enhance the remedial action to degrade source material in the vicinity of the OSA. Baseline groundwater monitoring of aquifer conditions shall be performed prior to and in connection with the placement of material (Regenesis HRC-X) to promote anaerobic conditions to increase bacteria populations in order to facilitate the reductive dechlorination process. A new monitoring well shall be installed as a part of the overall RA work order to provide information as to how the OSA portion of the aquifer is responding.

Hamilton Sundstrand shall introduce HRC-X into the groundwater underlying the OSA through the screened portion of the existing wells. HRC-X is a glycerol polylactate product which slowly releases hydrogen into groundwater for an extended period of time and creates anaerobic conditions which facilitate the biodegradation process for chlorinated volatile organic compounds. The exact amount of HRC-X to be introduced shall be determined based on the presence and levels of other electron acceptors in groundwater such as dissolved oxygen, nitrate, iron, manganese, and sulfate. The HRC-X mixture shall be introduced to the wells using a GS200 grout pump, or equivalent.

Hamilton Sundstrand shall abandon some existing wells in the vicinity of the OSA, as approved by U.S. EPA after opportunity for review and comment by Illinois EPA, in accordance with the Illinois Water Well Construction Code Section 920.120 in preparation for the excavation activities.

Hamilton Sundstrand shall properly abandon the SVE, air sparge, vacuum monitoring, and air sparge monitoring wells or points with a depth greater than five feet by filling the well annulus with cement bentonite slurry installed via tremie pipe to a depth of four feet bgs. The near ground surface portion of the well risers shall be removed in connection with the OSA excavation

activities. The shallow wells (five feet or less in depth) shall be completely removed as part of the excavation activities. Details of the abandonment of existing wells and additional well installation shall be subject to approval of U.S. EPA, after opportunity for review and comment by Illinois EPA.

Hamilton Sundstrand shall collect and analyze and submit waste characterization samples to the hazardous waste disposal facility for acceptance. The material shall be manifested and shipped under listed hazardous waste code F002 or other appropriate code as determined by the characterization analysis.

Hamilton Sundstrand shall ensure that the top three feet of backfill material shall be clean clay matrix soil. The soil shall be placed in one foot lifts over the excavated area and compacted with the excavating equipment. The area shall then be top dressed with suitable topsoil and seeded with grass to minimize erosion and for aesthetic purposes. Such backfill and suitable cover is needed to deal with basic site safety considerations after excavation performance.

After completion of activities, Hamilton Sundstrand shall prepare and submit a summary report documenting the work to U.S. EPA and Illinois EPA. The report shall consist of a brief narrative of the data collection and HRC-X introduction, well abandonment, excavation, backfilling activities and cap construction.

F. Loading Dock Area

Hamilton Sundstrand shall perform excavation of a limited volume of PCE-impacted soil identified in the shallow soil in the loading dock area. This effort shall be guided by limited soil sampling to define the volume of soil for off-site disposal. Excavation safety considerations and practices consistent with those discussed above with respect to the OSA shall be implemented in the loading dock area as well. Risk management strategies, including the placement of an engineered control, shall be implemented as appropriate.

G. Establishment of a Groundwater Management Zone (GMZ) at the Site.

A GMZ is a three-dimensional region containing groundwater being managed to mitigate impairment caused by the release of contaminants from a site. As noted in the 100% RD plan package, Hamilton Sundstrand shall establish an area-specific GMZ at the Hamilton Sundstrand Property within the Site's groundwater contaminant plumes in accordance with the provisions of 35 IAC Part 620. Hamilton Sundstrand shall establish the GMZ such that the lateral extent of and points of compliance for the GMZ shall be the two areas (GMZ 1 and GMZ 2) at the Hamilton Sundstrand Property (separated by the Illinois Central Railroad property in between GMZ 1 and GMZ 2), and the depth of the GMZ shall extend from the ground surface to the bottoms of the existing monitoring wells described in the Illinois EPA-approved GMZ document or as may be subsequently modified at the request of Hamilton Sundstrand and approved by

Illinois EPA. The Parties recognize and acknowledge that the GMZ may be in place after the completion of all active remediation specified under the Consent Decree, the ROD, and this SOW, and under 35 IAC Part 620. Once the Illinois EPA confirms that the groundwater remedy has been completed and the groundwater quality standards applicable to the class of groundwater have been achieved, other criteria under 35 IAC Part 620 are met, and U.S. EPA certifies that all Work has been completed under the terms of the Consent Decree, the Illinois EPA may dissolve the GMZ. If contaminants of concern (COC) at concentrations at or above those specified in 35 IAC Part 620 remain in the groundwater at the GMZ after the completion of the RA, U.S. EPA and the Illinois EPA shall review the adequacy of controls and site management, as necessary, or at least once every five years. To the extent necessary to achieve the Performance Standards, Settling Defendant shall be required to take necessary RAs determined to be appropriate by U.S. EPA, after opportunity for review and comment by Illinois EPA, to control contaminants of concern including, if necessary, reestablishment of the GMZ as a function of O & M of the remedy in a manner consistent with the Consent Decree, ROD and this SOW.

H. Coordination with OU3 Source Areas

The Parties recognize that contaminants of common concern from upgradient locations may impact the operation and effectiveness of the GMZ established at the Hamilton Sundstrand Property. Accordingly, the Parties shall share publicly available information regarding the potential impact of migration of contaminants of common concern from such upgradient locations in a timely fashion and at no cost to the other Party. To ensure effective coordination, the Settling Defendant shall maintain on-going communication with U.S. EPA and Illinois EPA regarding upgradient groundwater response activities at Source Areas for the duration of the GMZ established at the Hamilton Sundstrand Property.

I. Sampling and Additional Work

The Parties understand that Hamilton Sundstrand may dismantle certain structures on the Hamilton Sundstrand Property within the Site that are now under roofed conditions for business reasons. In such event, Settling Defendant shall collect and analyze soil borings of areas that become accessible and meet the criteria under the ROD of a source area to groundwater, and submit a report concerning the analytical findings for such areas to U.S. EPA and Illinois EPA. Based on the finding of such report, Settling Defendant shall conduct an objective technical evaluation to determine the most appropriate Alternative Measure(s) as described in Section II.D.1 of this SOW in order to meet the Performance Standards as described in Section II.D.2. this SOW at such newly discovered source area(s). Settling Defendant shall implement any such Alternative Measure approved by the U.S. EPA after opportunity for review and comment by Illinois EPA until the Performance Standards as described in Section II.D.2. of this SOW have been met at such newly discovered source area(s). Notwithstanding the foregoing, Settling Defendant may instead propose, subject to the approval of U.S. EPA, after opportunity for review

and comment by Illinois EPA, to utilize and maintain a remaining structure as an engineered control (appropriately supported by one or more ICs, and/or a risk assessment as may be required by U.S. EPA after opportunity for review and comment by Illinois EPA or at the voluntary election of Hamilton Sundstrand indicating no unreasonable risk to human health or the environment) to allow residual impacts to remain in place without the need for active remediation measures. In implementing Alternative Measures as described above in such previously roofed areas, Hamilton Sundstrand shall ensure coordination with the other source control activities underway at the Hamilton Sundstrand Property, such as those governing underground storage tanks and former waste storage areas, so as not to interfere with remedial activities in place.

J. Sampling and Contingency Extension of JP-4 Recovery Wells, Air Sparging and SVE Wells

Pending sampling, analysis and/or operational results, U.S. EPA and Illinois EPA may determine that it is necessary to add further extraction wells or other means of control to manage the appearance of nonaqueous phase liquids (NAPLs) in amounts that would interfere with normal SVE and air sparge well system operation, or in areas which would not be responsive to the existing SVE and air sparging System. If JP-4 liquids appear in locations downgradient of the current propellant fuel recovery system in amounts which would potentially interfere with proper functioning of air sparging and SVE systems as determined by U.S. EPA, after opportunity for review and comment by Illinois EPA, Settling Defendant shall submit a plan for U.S. EPA's review and approval, after opportunity for review and comment by Illinois EPA, which discusses how additional JP-4 recovery capacity shall be installed and managed. If sources of NAPLs are detected in locations and concentrations which would interfere with attainment of Performance Standards, or the appropriate management of the GMZ at the Hamilton Sundstrand Property within the Site, then Settling Defendant shall submit a plan for U.S. EPA's review and approval, after opportunity for review and comment by Illinois EPA, for removing and/or containing such NAPLs.

## III. REMEDIAL ACTION TASKS

Hamilton Sundstrand shall implement the RA through the performance of the following tasks:

### Task 1: Remedial Action Work Plan

Within 30 days after entry by the Court of the Consent Decree, Hamilton Sundstrand shall submit a Remedial Action Work Plan (RAWP) for the performance of the RA at the Site, which shall include a detailed description of all currently planned remediation and construction activities. The RAWP shall include a project schedule for each major activity and submission of deliverables to be generated during the RA. Hamilton Sundstrand shall submit a RAWP in

accordance with the timetable set forth in Section V of this SOW.

In addition to the requirements set forth in Section II of this SOW, the RA Work Plan shall include the following elements:

a. a schedule for completion of the RA construction activities;
b. a method for selection of the contractor;
c. a schedule for development and submittal of supporting plans identified in Section IV of this SOW or other plans required by the ROD to be included as part of the RAWP;
d. a groundwater monitoring plan;
e. methods for satisfying permitting requirements;
f. a methodology for implementation of the Contingency Plan;
g. tentative formulation of the RA team
h. a Construction Quality Assurance Plan; and
i. procedures and plans for the decontamination of equipment and the disposal of contaminated materials.

The RAWP shall include the approved RAPFD. The RAWP shall also include the methodology for implementation of the Construction Quality Assurance Plan, a schedule for implementation of all RA tasks identified in the Remedial Action Work Plan to be submitted in accordance with Section V. of this SOW, and shall identify the initial formulation of Hamilton Sundstrand's RA project team (including, but not limited to, the Supervising Contractor).

**Task 2: <u>Remedial Action/Construction</u>**

Unless otherwise directed by U.S. EPA, Hamilton Sundstrand shall not commence physical RA activities at the Site prior to approval of the RAWP. Hamilton Sundstrand shall implement the RA as detailed in the approved RAWP.

The following major milestones shall be completed during construction of the RA:

**A. Preconstruction Inspection and Meeting**

Hamilton Sundstrand shall participate with the U.S. EPA and the Illinois EPA in a preconstruction inspection and meeting to:

a. Review methods for documenting and reporting inspection data;
b. Review methods for distributing and storing documents and reports;
c. Review work area security and safety protocols;
d. Discuss any appropriate modifications of the Construction Quality

Assurance Plan to ensure that Site-specific considerations are addressed; and

e. Conduct a Site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and minutes shall be transmitted to all Parties.

**B. Prefinal Inspection**

Within 15 days after Hamilton Sundstrand makes a preliminary determination that construction is complete, Hamilton Sundstrand shall notify the U.S. EPA and the Illinois EPA for the purposes of conducting a prefinal inspection. The prefinal inspection shall consist of a walk-through inspection of the Remedial Action construction areas at the Hamilton Sundstrand Property with U.S. EPA and Illinois EPA. The inspection is to determine whether the construction is complete and consistent with the final design and RAWP. Any outstanding construction items discovered during the inspection shall be identified and noted. Additionally, treatment equipment shall be operationally tested by Hamilton Sundstrand, or an U.S. EPA- approved firm retained by Hamilton Sundstrand. Hamilton Sundstrand shall certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting shall be completed where deficiencies are revealed. The prefinal inspection report shall outline the outstanding construction items, actions required to resolve items, completion date for these items, and a proposed date for final inspection.

**C. Final Inspection upon Completion of Construction.**

Within 15 days after completion of work identified in the prefinal inspection report, Hamilton Sundstrand shall notify the U.S. EPA and Illinois EPA for the purpose of conducting a final inspection. The final inspection shall consist of a walk-through inspection of the Hamilton Sundstrand Property Remedial Action facilities by U.S. EPA and the Illinois EPA. The prefinal inspection report shall be used as a checklist with the final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

**D. Inspection upon Completion of the Remedial Action**

Within 90 days after Hamilton Sundstrand concludes that the RA has been fully performed, and the Performance Standards have been attained, Hamilton Sundstrand shall schedule and conduct a pre-certification inspection of the RA pursuant to the terms of the Consent Decree.

### E. Reports

The following reports shall be submitted as part of the implementation of the RA:

#### 1. Initial OSA Summary Report

Prior to cap placement over the former OSA area, Hamilton Sundstrand shall submit a progress report indicating degree of success in attaining soil cleanup goals within the former OSA area as described in Section II of this SOW and the RAWP. Within 30 days of cap construction over the former OSA area, Hamilton Sundstrand shall submit a report discussing monitoring well installation in proximity to the OSA area, and aquifer dosing results to date. Future annual O & M reports shall update further progress made regarding aquifer dosing and overall aquifer response.

#### 2. Final Construction Completion Report

Within 90 days after a successful final inspection of the construction of the physical components for the implementation of the RA, Hamilton Sundstrand shall submit a Construction Completion Report. In the report, a registered professional engineer and the Hamilton Sundstrand Project Coordinator shall state that the physical components for the implementation of the RA have been constructed in accordance with the designs and specifications. The written report shall include as-built drawings signed and stamped by a professional engineer. The report shall contain the following statement, signed by a responsible corporate official of Hamilton Sundstrand:

> "To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

#### 3. Completion of Remedial Action Report

When Hamilton Sundstrand concludes that the RA has been fully performed and the Performance Standards have been attained, Hamilton Sundstrand shall provide notification to U.S. EPA and Illinois EPA. Within 90 days after notification of completion of the Remedial Action, a pre-certification inspection of the RA will be performed by U.S. EPA and Illinois EPA. Within 30 days thereafter, Hamilton Sundstrand shall submit a Completion of the Remedial Action Report pursuant to the terms of the Consent Decree.

**Task 3: Operation and Maintenance**

Consistent with the ROD and this SOW, Hamilton Sundstrand shall prepare an O&M Plan to

cover both continued implementation and long-term maintenance of the RA as described below (O&M Plan).

An initial draft O&M Plan was submitted as a prefinal Remedial Design Document submission. The final O&M Plan shall be submitted to U.S. EPA along with the final Construction Completion Report, in accordance with the approved construction schedule in the RAWP. The plan shall include the following elements:

A. Description of normal operation and maintenance:

(1) Description of tasks for operation;
(2) Description of tasks for maintenance;
(3) Description of prescribed treatment or operation conditions; and
(4) Schedule showing frequency of each O&M task.

B. Description of potential operating problems:

(1) Description and analysis of potential operation problems;
(2) Sources of information regarding problems; and
(3) Common and/or anticipated remedies.

C. Description of routine monitoring and laboratory testing:

(1) Description of monitoring tasks;
(2) Description of required data collection, laboratory tests and their interpretation;
(3) Required quality assurance, and quality control;
(4) Schedule of monitoring frequency and procedures for a petition to U.S. EPA and Illinois EPA to reduce the frequency of or discontinue monitoring; and
(5) Description of verification sampling procedures if cleanup or Performance Standards are exceeded in routine monitoring.

D. Description of alternate O & M

(1) Alternate procedures to prevent release or threatened releases of hazardous substances, pollutants or contaminants which may endanger public health and the environment or exceed performance standards; and
(2) Analysis of vulnerability and additional resource requirement should a failure occur.

E. Corrective Action:

(1) Following the completion of active remediation efforts specified in this SOW, a description of corrective action procedures, including a complete evaluation of data and all alternatives to be implemented in the event that:

(a) contaminant concentrations in groundwater confirm a statistically significant increase for two consecutive sampling cycles;
(b) near-source wells exhibit a statistically significant increase in contaminant concentration;
(c) contaminant concentrations indicate that the Performance Standards shall not be met: and

(2) Schedule for implementing these corrective action procedures.

F. Safety plan:

(1) Description of precautions, of necessary equipment, etc., for Hamilton Sundstrand Property personnel; and
(2) Safety tasks required in event of systems failure.

G. Description of equipment:

(1) Equipment identification;
(2) Installation of monitoring components;
(3) Maintenance of Hamilton Sundstrand Property equipment; and
(4) Replacement schedule for equipment and installed components.

H. Records and reporting mechanisms required:

(1) Daily operating logs;
(2) Laboratory records;
(3) Records for operating costs;
(4) Mechanism for reporting emergencies;
(5) Personnel and maintenance records; and
(6) Quarterly reports to U.S. EPA and Illinois EPA, unless the Parties agree to an alternative schedule.

## IV. CONTENT OF SUPPORTING PLANS

Hamilton Sundstrand shall prepare and submit the documents listed in this section – the Quality Assurance Project Plan, the Field Sampling Plan, the Health and Safety Plan, the Contingency

Plan and the Construction Quality Assurance Plan. The following section describes the required contents of each of these supporting plans and indicates when they are to be submitted.

### A. Quality Assurance Project Plan

Hamilton Sundstrand shall develop a Quality Assurance Project Plan (QAPP), covering sample analysis and data handling for samples collected in all phases of RA work performed by Hamilton Sundstrand at the Hamilton Sundstrand Property, based upon the Consent Decree, the ROD and this SOW, and guidance provided by U.S. EPA. The QAPP shall be consistent with the requirements of the U.S. EPA Contract Lab Program (CLP) for laboratories proposed outside the CLP. The QAPP shall at a minimum include:

1. Project Description
   a. Hamilton Sundstrand Property Location History
   b. Past Data Collection Activity
   c. Project Scope
   d. Sample Network Design
   e. Parameters to be Tested and Frequency
   f. Project Schedule

2. Project Organization and Responsibility

3. Quality Assurance Objective for Measurement Data
   a. Level of Quality Control Effort
   b. Accuracy, Precision and Sensitivity of Analysis
   c. Completeness, Representativeness and Comparability

4. Sampling Procedures

5. Sample Custody
   a. Field Specific Custody Procedures
   b. Laboratory Chain of Custody Procedures

6. Calibration Procedures and Frequency
   a. Field Instruments/Equipment
   b. Laboratory Instruments

7. Analytical Procedures
   a. Non-Contract Laboratory Program Analytical Methods.
   b. Field Screening and Analytical Protocol
   c. Laboratory Procedures

8. Internal Quality Control Checks
   a. Field Measurements
   b. Laboratory Analysis

9. Data Reduction, Validation and Reporting
   a. Data Reduction
   b. Data Validation
   c. Data Reporting

10. Performance and System Audits
    a. Internal Audits of Field Activity
    b. Internal Laboratory Audit
    c. External Field Audit
    d. External Laboratory Audit

11. Preventive Maintenance
    a. Routine Preventative Maintenance Procedures and Schedules
    b. Field Instruments/Equipment
    c. Laboratory Instruments

12. Specific Routine Procedures to Assess Data Precision, Accuracy and Completeness
    a. Field Measurement Data
    b. Laboratory Data

13. Corrective Action
    a. Sample Collection/Field Measurement
    b. Laboratory Analysis

14. Quality Assurance Reports to U.S. EPA

Thirty (30) days after submittal of the RAWP, Hamilton Sundstrand shall review the existing QAPP documentation prepared for the RD and review with U.S. EPA and Illinois EPA what advisable changes may be necessary to account for needed data quality objectives during periods of RA performance and operational functions. If necessary, Hamilton Sundstrand shall attend a pre-QAPP meeting with U.S. EPA and Illinois EPA, and discuss any needed QAPP modifications. Hamilton Sundstrand shall submit a modified or amended QAPP to U.S. EPA for review and approval, after opportunity for review and comment by Illinois EPA.

**B. Health and Safety Plan**

Along with the RAWP, Hamilton Sundstrand shall develop a health and safety plan which is designed to protect Hamilton Sundstrand Property personnel and area residents from physical, chemical and all other hazards posed by this RA at the Hamilton Sundstrand Property. The safety plan may be modified from the safety plan developed for the RD. The safety plan shall develop the performance levels and criteria necessary to address the following areas:

Hamilton Sundstrand Property Description
Personnel
Levels of protection
Safe work practices and safe guards
Medical surveillance
Personal and environmental air monitoring
Personal protective equipment
Personal hygiene
Decontamination – personnel and equipment
Hamilton Sundstrand Property work zones
Contaminant control
Contingency and emergency planning
Logs, reports and record keeping

The safety plan shall follow U.S. EPA guidance and all OSHA requirements as outlined in 29 CFR 1910 and 1926.

### C. Contingency Plan

Hamilton Sundstrand shall submit a Contingency Plan describing procedures to be used in the event of an accident or emergency at the Hamilton Sundstrand Property. The Contingency Plan shall be submitted with the Remedial Action Work Plan. The Contingency Plan shall be approved prior to the start of construction. The Contingency Plan shall include, at a minimum, the following:

1. Name of the person or entity responsible for responding in the event of an emergency incident;

2. Plan and date(s) for meeting(s) with the local community, including local, state and federal agencies involved in the cleanup, as well as local emergency squads and hospitals;

3. First aid medical information;

4. Air Monitoring Plan (if applicable); and

5. Coordinate with other areas of the Hamilton Sundstrand Property subject to Spill Prevention, Control, and Countermeasures (SPCC) Plan (if applicable), as specified in 40 CFR Part 109. Relay findings of such coordination which are pertinent to successful RA implementation, as well as how accident/emergency conditions are to be communicated to CERCLA and/or community personnel describing measures to prevent and contingency plans for potential spills and discharges from materials handling and transportation.

**D. Field Sampling Plan**

Thirty (30) days after submittal of the RAWP, Hamilton Sundstrand shall develop a field sampling plan to address all sample collection activities.

**E. Construction Quality Assurance Plan**

Hamilton Sundstrand shall submit a Construction Quality Assurance Plan (CQAP) which describes the Hamilton Sundstrand Property-specific components of the quality assurance program which shall ensure that the completed project meets or exceeds all design criteria, plans, and specifications. A CQAP was submitted with the final design. The final CQAP for the RA shall be submitted along with the RAWP and approved prior to the start of construction. The CQAP shall contain, at a minimum, the following elements:

1. Responsibilities and authorities of all organizations and key personnel involved in the design and construction of the RA;

2. Qualifications of the Quality Assurance Official to demonstrate he or she possesses the training and experience necessary to fulfill his or her identified responsibilities;

3. Protocols for sampling and testing to be used to monitor construction;

4. Identification of proposed quality assurance sampling activities including the sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports, and final documentation. A description of the provisions for final storage of all records consistent with the requirements of the Consent Decree shall be included; and

5. Reporting requirements for CQA activities shall be described in detail in the CQAP. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance

reports, and final documentation. Provisions for the final storage of all records shall be presented in the CQAP.

## V. SUMMARY OF MAJOR DELIVERABLES/SCHEDULE

A summary of the project schedule and reporting requirements contained in this SOW is presented below:

| Submission / Activity | Due Date |
|---|---|
| 1. Notification re: Project Coordinator | Twenty (20) days after Lodging of the Consent Decree |
| 2. Progress Reports – In accordance with Section X of the Consent Decree | Quarterly after the Lodging Date of the Consent Decree (unless the Parties agree to an alternative schedule) |
| 3. Filing with the Winnebago Recorder of Deeds of Notice to successors-in-title regarding NPL status, land/water use restrictions and other site information | Ten (10) days after U.S. EPA approval of Notice |
| 4. Notification to U.S. EPA of Proposed Supervising Contractor | Ten (10) days after Lodging of Consent Decree |
| 5. RA Work Plan and Award of Contract | Within thirty (30) days after entry by the Court of the Consent Decree |
| 6. QAPP and FSP | Within sixty (60) days after submittal of the RA Work Plan |
| 7. Pre-Construction Inspection of RA Contract and Meeting | Pursuant to the RA construction schedule included in the approved RA Work Plan |
| 8. Initiate Construction of RA | As approved by U.S. EPA in RA construction schedule in the approved Remedial Action Work Plan |
| 9. Completion of Construction | As approved by U.S. EPA in RA construction schedule |
| 10. Prefinal Inspection | No later than fifteen (15) days after preliminary |

| | |
|---|---|
| | determination of completion of construction |
| 11. Prefinal Inspection Report | No later than fifteen (15) days after prefinal inspection |
| 12. Final Inspection | No later than fifteen (15) days after completion of work identified in the prefinal inspection report |
| 13. OSA initial summary report | As noted in Section II - item 5 – After excavation activity. Future progress concerning aquifer dosing results and groundwater response shall be submitted as a part of future O & M reporting |
| 14. Final Construction Completion Report; Final O & M Plan | Ninety (90) days after completion of final inspection |
| 15. Pre-Certification of Completion of RA Inspection | Within ninety (90) days after notification of completion of RA and attainment of Performance Standards |
| 16. Completion of RA Report | Thirty (30) days after Pre-Certification of Completion of RA Inspection |
| 17. Pre-Certification of Completion of the Work Inspection | Ninety (90) days after Settling Defendant concludes that all phases of the Work (including O & M) have been performed |
| 18. Certification of Completion of the Work Report | Ninety (90) days after Pre-Certification of Completion of the Work Inspection |

The schedules provided for in Sections III-V of this SOW may be subject to revision, with the written agreement of U. S. EPA, Illinois EPA and Hamilton Sundstrand. Any such schedule revision shall be incorporated in, and enforceable under, the Consent Decree.

During the course of the RA, supplemental reports that address additional data collection, evaluation, and provide conclusions may be required by U.S. EPA with opportunity for review and comment by Illinois EPA with respect to certain environmental conditions at the Hamilton Sundstrand Property (including, but not limited to the 2000 LUST Incident). To the extent not otherwise addressed above, the timelines for submittal of such documents are contingent on

certain factors such as building demolition activities which cannot be specified at present. Hamilton Sundstrand shall communicate on such factors to U.S. EPA and Illinois EPA, and Parties shall attempt to reach agreement on the preparation of such documents and the schedule for submittal of same. Hamilton Sundstrand may seek resolution under the Dispute Resolution procedures of Section XIX of the Consent Decree upon the Parties' failure to reach agreement regarding preparation and schedule for submittal of such supplemental reports.